

Paz-Maldonado, E., Calvo-Álvarez, M.I. and Silva-Peña, I. (2025). Perspective of students with disabilities on barriers, facilitators and mechanisms for inclusion at university: a systematic review. *Revista de Investigación Educativa*, 4 3. DOI: <https://doi.org/10.6018/rie.605401>

Traducido con  DeepL

Perspective of Students with Disabilities on Barriers, Facilitators, and Mechanisms for Inclusion at University: a Systematic Review ¹

Perspectiva del alumnado con discapacidad sobre barreras, facilitadores y mecanismos para la inclusión en la universidad: una revisión sistemática

Eddy Paz-Maldonado*², María Isabel Calvo-Álvarez** and Ilich Silva-Peña***

*Doctorate Programme in Education, University of Salamanca (Spain)

*Department of Pedagogy and Education Sciences, National Autonomous University of Honduras (Honduras).

**University Institute of Community Integration, University of Salamanca (Spain)

***Instituto Interuniversitario de Investigación Educativa, Universidad de Los Lagos (Chile)

*** Instituto de Ciências Humanas e Sociais, Universidade Federal de Ouro Preto (Brazil)

Abstract

Educational inclusion can be understood as a set of actions that are carried out with the aim of promoting an educational system for all, but particularly for those groups that have been excluded from it. This systematic review presents the perspective of students with disabilities regarding barriers, facilitators, and mechanisms for inclusion at university. A wide search was conducted in the Scopus, SciELO and Web of Science databases during the period 2013 to 2023.

¹ The study is a contribution to the SDGs: 4) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, and 10) Reduce inequalities.

² **Correspondence:** Eddy Paz-Maldonado, eddy.paz@usal.es. Patio de Escuelas Menores 37008 Salamanca, Spain.

After applying the selection criteria, a total of 41 scientific articles were included. These papers represent diverse geographical areas, show varied methodological approaches, and involve 1374 university students with different disabilities. The results were organized into four categories: 1) Studies included and their characteristics, 2) Barriers that limit the inclusion of university students with disabilities, 3) Facilitators that contribute to the inclusion of students with disabilities in universities and 4) Mechanisms used by universities to promote the inclusion of students with disabilities. The conclusions establish that despite the multiple efforts made by higher education institutions, it is necessary to achieve true inclusion to guarantee the right to education of students with disabilities and to eradicate the inequalities faced.

Keywords: access for the disabled; right to education; Higher Education; equal opportunity; systematic review.

Resumen

La inclusión educativa puede entenderse como un conjunto de acciones que se llevan a cabo con la finalidad de favorecer un sistema educativo para todas las personas, pero particularmente para aquellos colectivos que han sido excluidos a lo largo del tiempo. La presente revisión sistemática plantea la perspectiva del alumnado con discapacidad respecto a barreras, facilitadores y mecanismos para la inclusión en la universidad. Se realizó una búsqueda en las bases de datos Scopus, SciELO y Web of Science durante el período 2013 al 2023. Luego de aplicar los criterios de selección que forma parte de este estudio se han incluido un total de 41 artículos científicos. Dichos trabajos representan diferentes zonas geográficas, muestran un variado abordaje metodológico e involucran a 1374 estudiantes universitarios con distintas discapacidades. Los resultados fueron organizados en cuatro categorías siendo estas: 1) Estudios incluidos y sus características, 2) Barreras que limitan la inclusión del alumnado universitario con discapacidad, 3) Facilitadores que contribuyen a la inclusión del alumnado con discapacidad en la universidad y 4) Mecanismos que utilizan las universidades para generar la inclusión del alumnado con discapacidad. Las conclusiones establecen que a pesar de los múltiples esfuerzos ejecutados por los establecimientos del nivel superior se requiere seguir trabajando para alcanzar una verdadera inclusión con el fin de garantizar el derecho a la educación del alumnado con discapacidad y erradicar las desigualdades afrontadas.

Palabras clave: accesibilidad para personas con discapacidad; derecho a la educación; Enseñanza Superior; igualdad de oportunidades; revisión sistemática.

Introduction

The *Convention on the Rights of Persons with Disabilities* establishes that persons with disabilities have the right to education at all levels. States Parties have assumed the responsibility to ensure inclusive education that takes into account human potential,

dignity, respect and participation. This is in order to eradicate exclusion, improve the quality of education, provide reasonable accommodation and facilitate a range of supports (United Nations [UN], 2006).

However, achieving the educational inclusion of students with disabilities has been and continues to be one of the great challenges facing universities today. However, the struggle is constant, given that it is necessary to eradicate the architectural, bureaucratic, IT, learning, personal and social barriers that exist in institutions at this level, as they prevent them from providing comprehensive quality education (García-González et al., 2021; Paz-Maldonado, 2020). Therefore, the goal for the year 2030 is to guarantee inclusive education by promoting opportunities for all groups attending higher education institutions (UN, 2019). From this perspective, universities will have to increase training, awareness-raising and action processes that involve the entire educational community (García-González et al., 2021). As well as improving student support services and the accessibility of facilities (Majoko, 2018).

To promote educational inclusion means to move from a process of integration that has prevailed in various countries, particularly in developing countries, towards real actions based on social justice. This vision will make it easier to take into account the constant participation of students as active members of the university community, since throughout time people with disabilities have been considered deficient beings, which conditions an education that embraces diversity (Bayo Guardiola and Moliner García, 2021; Nones-Budde et al., 2023; Paz-Maldonado et al., 2023).

Disability can be understood according to various conceptions and models. However, even in times with abundant information available, it continues to be viewed from a medical model, which states that people with disabilities are a problem and that no matter how much action is taken, they will continue to be a limitation themselves. However, as a counter-narrative to this view, new models have been established that go beyond this deficient vision, such as the social model, which presents disability as being far from a deficit and that, therefore, no human being should be subject to labelling (Cruz Vadillo and Casillas Alvarado, 2017; Moriña et al., 2024). That of diversity, which values difference and identity, assuming the conceptualisation of functional diversity (Seoane, 2011). Likewise, that of human rights, which recognises that everyone is a subject of rights regardless of their condition (Paz-Maldonado, 2021; Seoane, 2011).

These conceptions influence the cultures, policies and practices developed in universities. Therefore, the research question to be answered in this paper is: What findings does the scientific literature report about the perspective of students with disabilities on barriers, facilitators and mechanisms for inclusion at university?

Methodology

This systematic review followed the PRISMA statement in order to identify, select and evaluate studies previously published in different databases (Moher et al., 2010; Page et al., 2021). We considered empirical research conducted from 2013-2023 concerning the perspective of students with disabilities on barriers, facilitators and mechanisms to generate inclusion at university .

Objectives

Understanding the inclusion of students with disabilities at university is an essential issue. Therefore, this paper has two objectives:

- To describe the studies published in scientific journals about the perspective of students with disabilities on barriers, facilitators and mechanisms for inclusion at university during the years 2013-2023.
- To analyse the main findings reported in the scientific publications that form part of the selected databases.

Research and selection of studies

A search was carried out on 19 December 2023, selecting three of the most widely used international databases. In this way, we proceeded to search for articles that corresponded to the research question of this paper in the Scopus, SciELO and Web of Science databases. The descriptors "inclusion", "disability", "higher education" and "university students with disabilities" were used for the search, taking into account two search combinations. Tables 1 and 2 specify the search strategies used.

Table 1

Search strategies combination 1

Databases	Search strategy
Scopus	TITLE-ABS-KEY ((inclusion) AND (disability) AND ("higher education"))
SciELO	(inclusion) AND (disability) AND (higher education)
Web of Science	TS=(inclusion AND disability AND "higher education")

Table 2

Search strategies combination 2

Databases	Search strategy
Scopus	TITLE-ABS-KEY ((inclusion) AND ("university students with disabilities") AND ("higher education"))
SciELO	(inclusion) AND (university students with disabilities) AND (higher education)
Web of Science	TS=(inclusion AND university students with disabilities AND "higher education")

Inclusion and exclusion criteria

In order to achieve the objectives set out in this work, a series of inclusion and exclusion criteria were established for the selection of the articles: a) empirical articles that addressed the perspective of students with disabilities on barriers, facilitators and mechanisms for inclusion in higher education; b) that their participants were only undergraduate students with disabilities at the time the study was carried out; c) written in Spanish, English or Portuguese; and d) published between 1 January 2013 and 19 December 2023.

In addition, the following exclusion criteria were used: a) publications related to systematic reviews, theoretical reviews, books, reviews, conference proceedings, theses; b) studies in which the participants were not only students with disabilities; c) works that addressed the topic at the pre-basic, basic and secondary education levels, and d) publications outside the established time range.

Organisation, selection and analysis

Prior to the selection of the publications, each of the articles was reviewed and all duplicate documents in the different databases consulted were eliminated. The rest of the articles were organised in a Microsoft Excel spreadsheet detailing: year, author, article title and journal. This was done in order to be evaluated by title, abstract and full text. Once the articles were selected, a system of categories was designed with the purpose of exhaustively analysing the information provided by each of the articles. The categories were created taking into account previous reviews where the key aspects of this work were not developed in depth, so the present study represents a way of updating recently published information.

Figure 1 shows the PRISMA flowchart with the selection of items included in this work.

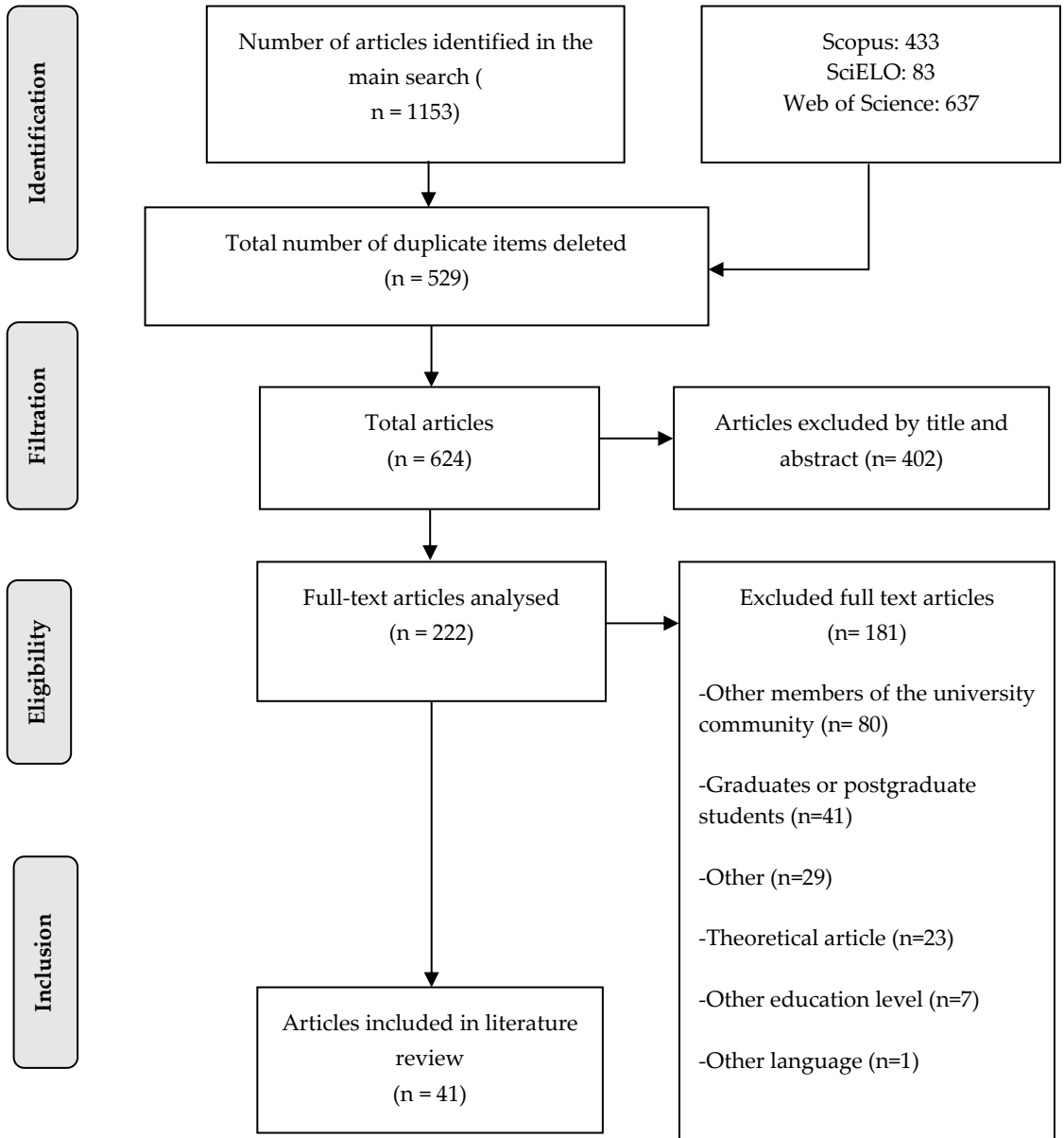


Figure 1. PRISMA flowchart for sample selection

Results

In order to respond to the research question and the established objectives, the results of this systematic review were organised into four analytical categories: 1) Studies included and their characteristics, 2) Barriers to the inclusion of university students with disabilities, 3) Facilitators that contribute to the inclusion of students with disabilities in universities and 4) Mechanisms used by universities to generate the inclusion of students with disabilities.

Studies included and their characteristics

In terms of the year of publication, 2020 saw the highest amount of scientific production with nine published articles (22%). In contrast, in 2015 and 2019 there was only one publication in each year (2%). Regarding the continents where most of the studies were carried out, these were Europe and America. Fifteen papers were located in Europe (37%), fourteen in America (34%) compared to (20%) in Africa, (7%) in Asia and (2%) in Oceania. The European countries are Spain (5), Portugal (2), United Kingdom (2), Germany (1), Croatia (1), Slovenia (1), Greece (1), Italy (1) and Norway (1). In the Americas, Brazil (7), Chile (2), Mexico (2), Argentina (1), Costa Rica (1) and the United States (1) stand out.

With regard to the language of publication, English prevails with twenty-six articles (63%). As for the methodological approach, thirty-two articles were found with a qualitative approach being the most used (78%), six quantitative studies (15%) and three mixed (7%). On the other hand, the articles included in this study involved a total of 1374 participants of which 413 did not specify the type of disability, 406 were students with sensory disability (hearing/visual), 314 with physical disability, 110 had a mental disorder, 43 had specific developmental disabilities, 32 had multiple disabilities, 22 had chronic illnesses, 19 had learning disorders, 10 had language disorders, 3 had intellectual disabilities, 1 had high intellectual ability and the same number had urinary incontinence. The age range of the participants was 18 to 64 years. Further details on the characteristics of the 41 included studies are given in Tables 3 and 4.

Table 3

Characteristics of included studies (n=41)

Aspect	Code	N	%
Publication period	2014	2	5%
	2015	1	2%
	2016	2	5%
	2017	2	5%
	2018	8	20%
	2019	1	2%
	2020	9	22%
	2021	3	7%
	2022	7	17%
	2023	6	15%
Continent	Europe	15	37%
	America	14	34%
	Africa	8	20%
	Asia	3	7%
	Oceania	1	2%
Language	English	26	63%
	English	8	20%
	Portuguese	7	17%
Focus of the study	Qualitative	32	78%
	Quantitative	6	15%
	Mixed	3	7%

Table 4

Summary information of included studies (n=41)

Authors/year	Country	Focus of the study	Number of participants	Disabilities	Sex	Age range	Language
Andoh et al. (2022)	Ghana	Qualitative	19	Physics: 17 Specific developmental disabilities: 1	Male:13 Female: 6	Non-specific	English
Bartz (2020)	Germany	Mixed	45	Mental disorder: 14 Sensory: 11 Chronic illness: 6 Language disorder: 5 Physics: 5 Specific developmental disabilities: 4 Sensory: 7	Female: 28 Male: 17	20-41	English
Bell and Swart (2018)	South Africa	Qualitative	7	Sensory: 7	Male: 4 Female: 3	19-24	English
Biggeri et al. (2020)	Italy	Qualitative	50	Sensory: 19 Physical: 16 Mental disorder: 11 Specific developmental disabilities: 2 Multiple: 2	Female: 27 Male: 23	Non-specific	English

Bualar (2018)	Thailand	Qualitative	12	Sensory: 12	Male: 8 Female: 4	19-21	English
Cardoso Pérez (2020)	Mexico	Quantitative	25	Sensory: 22 Physics: 3	Male: 16 Female: 9	19-39	English
Costas et al. (2022)	Brazil	Quantitative	37	Sensory: 11 Physical: 10 Specific developmental disabilities: 8 Learning disability: 4 High intellectual ability: 1 Mental disorder: 1 Intellectual: 1 Multiple: 1	Male: 22 Female: 14 No indicated: 1	18-64	Portuguese
Diniz and Silva (2021)	Brazil	Qualitative	26	Non-specific	Female: 14 Male: 12	18-58	Portuguese
Dreyer (2021)	South Africa	Qualitative	14	Specific developmental disabilities: 14	Non-specific	Non- specific	English
Ehlinger and Ropers (2020)	United States	Qualitative	13	Mental disorder: 8 Physics: 2 Specific developmental disabilities: 2 Sensory: 1	Female: 8 Male: 5	Non- specific	English

Estácio and Almeida (2016)	Brazil	Qualitative	Non-specific	Sensory (not specific quantity)	Non-specific	Non-specific	Portuguese
Fernandes et al. (2016)	Portugal	Qualitative	8	Sensory, physical, specific developmental disabilities and learning disability (not specific amount)	Female: 4 Male: 4	22-41	Portuguese
Fontana Hernández (2019)	Costa Rica	Qualitative	38	Sensory: 17 Specific developmental disabilities: 7 Learning disability: 6 Mental disorder: 5 Physics: 1 Language disorder: 1 Chronic illness: 1	Female: 20 Male: 18	Non-specific	English
Frank et al. (2020)	United Kingdom	Qualitative	4	Sensory: 4	Non-specific	Non-specific	English
Garcia et al. (2018)	Brazil	Qualitative	5	Sensory: 4 Physics: 1	Non-specific	20-49	Portuguese
Heffernan (2023)	United Kingdom	Qualitative	277	Non-specific	Non-specific	Non-specific	English
Langørgen and Magnus (2018)	Norway	Qualitative	14	Sensory: 5 Chronic illness: 2 Mental disorder: 2 Learning disability: 2	Female: 11 Male: 3	22-37	English

López-Bastías et al. (2020)	Spain	Quantitative	82	Physics: 1 Specific developmental disabilities: 1 Multiple: 1 Physical: 51 Mental disorder: 15 Sensory: 10 Multiple: 4 Intellectual: 2	Female: 44 Male: 38	18-64	English
Luthuli and Wood (2022)	Zimbabwe	Qualitative	10	Physics:6 Sensory: 3 Multiple: 1	Female:7 Male: 3	20-50	English
Mainardi-Remis (2018)	Argentina	Mixed	40	Sensory: 23 Physics: 13 Multiple: 4	Male: 21 Female: 19	20-25	English
Martín y Moriña (2022)	Portugal	Qualitative	4	Physics: 2 Multiple:2	Female: 2 Male: 2	18-20	English
Mensah et al. (2022)	Ghana	Qualitative	12	Physics: 6 Sensory: 6	Non-specific	Non-specific	English
Milic Babic and Dowling (2015)	Croatia	Qualitative	9	Physics: 5 Multiple: 2 Sensory: 2	Male: 5 Female:4	20-30	English
Monroy Flores and Mayorga Rojel (2020)	Chile	Qualitative	5	Specific developmental disabilities: 2 Sensory: 2	Male: 3 Female: 2	Non-specific	English

Moriña and Carballo (2020)	Spain	Qualitative	44	Physics: 1 Physics: 17 Sensory: 16 Mental disorder: 7 Chronic illness: 4	Female: 22 Male: 22	19-59	English
Mutanga (2018)	South Africa	Qualitative	14	Non-specific	Non-specific	Non-specific	English
Nel et al. (2023)	South Africa	Qualitative	20	Sensory: 13 Physics:5 Specific developmental disabilities: 1 Urinary incontinence: 1	Male:12 Female:8	Non-specific	English
Pereira et al. (2020)	Brazil	Mixed	50	Non-specific	Male: 28 Female: 22	18-45	English
Polo Sánchez and Aparicio Puerta (2023)	Spain	Quantitative	50	Sensory: 27 Physical: 16 Multiple: 7	Female: 36 Male: 14	20-60	English
Reyes et al. (2023)	Spain	Qualitative	24	Physics: 5 Mental disorder: 6 Learning disability: 6 Sensory: 4 Language disorder: 1 Multiple:2	Female: 13 Male: 11	22-57	English
Rodríguez Martín and	Spain	Quantitative	91	Sensory: 58 Physical: 33	Male: 51 Female: 40	22-28	English

Álvarez Arregui (2014).								
Rofiah et al. (2023)	Indonesia	Qualitative	15	Sensory: 11 Physics: 3 Specific developmental disabilities: 1	Male: 8 Female: 7	20-22	English	
Schreuer and Sachs (2014)	Israel	Quantitative	170	Physical: 61 Sensory: 65 Mental disorder: 39 Multiple: 5	Male: 92 Female: 78	Non-specific	English	
Silva and Ferreira (2017)	Brazil	Qualitative	1	Sensory: 1	Male: 1	Non-specific	Portuguese	
Silva and De Oliveira (2018)	Brazil	Qualitative	14	Sensory: 9 Physics: 4 Multiple: 1	Female: 9 Male: 5	Non-specific	Portuguese	
Tai et al. (2023)	Australia	Qualitative	40	Non-specific	Non-specific	18-35	English	
Ule (2017)	Slovenia	Qualitative	22	Chronic illness: 9 Physics: 4 Language disorder: 3 Sensory: 3 Mental disorder: 2 Learning disability: 1	Female: 13 Male: 9	Non-specific	English	
Vergara Fregoso and	Mexico	Qualitative	1	Sensory: 1	Female: 1	Non-specific	English	

Perspective of students with disabilities on barriers, facilitators...

Gamboa Suárez (2022)	Chile	Qualitative	8	Physics: 8	Female: 6 Male: 2	21-31	English
Vilches Vargas and Garcés Estrada (2021)	Greece	Qualitative	32	Physical: 18 Sensory: 14	Female: 17 Male: 15	19-26	English
Vlachou and Papananou (2018)	Ethiopia	Qualitative	22	Sensory: 22	Male: 14 Female: 8	22-36	English
Wudmatas (2022)							

Barriers limiting the inclusion of university students with disabilities

98% of the studies identify different barriers that limit the possibility of carrying out inclusive education in universities. Almost all the studies state that the main barrier is related to the poor accessibility of campus infrastructure, which hinders access, mobility and optimal development of students with disabilities during their academic stay. Thus, when university facilities are inaccessible, the full participation of students with disabilities in activities of interest to them is limited (Andoh et al., 2022; Heffernan, 2023).

In the same vein, there are architectural elements that are not taken into account in universities and are seen as obstacles, including the size of classrooms and the noise that may occur during training sessions (Bartz, 2020; Rofiah et al., 2023). Similarly, it is evident that when adequate facilities are not available, particularly in spaces of privacy, e.g. toilets or showers, autonomy, privacy and dignity are strongly affected (Luthuli and Wood, 2022).

On the other hand, most studies report that the information provided by some universities in print and digital form is inaccessible. This barrier to accessing information makes it difficult for students with disabilities to interact from the admission stage to the processes related to permanence and graduation (Bell and Swart, 2018; Bualar, 2018; Vlachou and Papananou, 2018; Wudmatas, 2022). Likewise, different scientific publications identify the lack of adapted resources or materials, which further increases the gaps, since these adjustments are determinant for achieving educational inclusion (Estácio and Almeida, 2016; Mensah et al., 2022; Rodríguez Martín and Álvarez Arregui, 2014; Silva and Ferreira, 2017; Vergara Fregoso and Gamboa Suárez, 2022).

On the other hand, the lack of teacher training on disability and inclusion in education is considered a barrier. Some studies focus on the limited preparation of teachers to develop reasonable accommodations in materials (Frank et al., 2020; Garcia et al., 2018; Langørgen and Magnus, 2018; Martins and Moriña, 2022; Milic Babic and Dowling, 2015; Monroy Flores and Mayorga Rojel, 2020; Vilches Vargas and Garcés Estrada, 2021), some on assessment (Bartz, 2020; Bualar, 2018; Mensah et al., 2022; Milic Babic and Dowling, 2015) and others in the establishment of a good communication-relationship with the students in such a situation during the teaching-learning process (Bell and Swart, 2018; Costas et al., 2022; Diniz and Silva, 2021; Fernandes et al., 2016; Moriña and Carballo, 2020; Mutanga, 2018; Nel et al., 2023; Pereira et al., 2020; Reyes et al., 2023; Silva and De Oliveira, 2018; Tai et al., 2023).

Likewise, publications report the existence of negative attitudes on the part of the university community towards students with disabilities, which impacts on academic development and limits their participation in decision-making (Andoh et al., 2022; Diniz and Silva, 2021; Fernandes et al., 2016; Martins and Moriña, 2022; Nel et al., 2023;

Wudmatas, 2022). On the other hand, several studies identify the need to create more student support services and hire specialised staff to provide care in these university instances (Bartz, 2020; Langørgen and Magnus, 2018; Mensah et al., 2022). Along the same lines, different studies establish that there is still a lack of knowledge among students with disabilities about the functioning of the inclusion programmes and policies in place at the institutional level (Cardoso Pérez, 2020; Dreyer, 2021; Mainardi-Remis, 2018).

On a smaller scale, other barriers that were detailed in the studies are the long distances that some students have to travel to attend university centres, the bureaucratic nature of the enrolment process, the lack of coordination between the units that offer student services, the scarcity of extracurricular activities, the overload of academic assignments and the lack of instruments that make it possible to identify students with disabilities attending higher education institutions (Andoh et al, 2022; Costas et al., 2022; Heffernan, 2023; Martins and Moriña, 2022; Wudmatas, 2022).

Facilitators contributing to the inclusion of students with disabilities at the university

With regard to facilitators contributing to the inclusion of students with disabilities at university, 88% of the articles report such information. Peer support is the main element identified in several of the studies. These mutually supportive relationships benefit students with disabilities to challenge adverse contextual conditions in their quest to obtain a university degree (Bell and Swart, 2018; Cardoso Pérez, 2020; Diniz and Silva, 2021; Dreyer, 2021; Langørgen and Magnus, 2018; López-Bastías et al., 2020; Martins and Moriña, 2022; Mensah et al., 2022; Rofiah et al., 2023).

Similarly, related to support, the collaboration offered by teachers during the teaching-learning process is highlighted to a lesser extent (Ehlinger and Ropers, 2020; Estácio and Almeida, 2016). Likewise, the support provided by families is considered fundamental, given that it increases personal motivation to overcome barriers that may arise in the academic life journey (Diniz and Silva, 2021; Langørgen and Magnus, 2018; López-Bastías et al., 2020; Martins and Moriña, 2022; Milic Babic and Dowling, 2015; Monroy Flores and Mayorga Rojel, 2020; Ule, 2017). At the same time, studies suggest that developing positive personal attributes linked to acceptance, the desire to excel, confidence in their own abilities and determination are of great benefit in achieving educational success for students with disabilities (Fontana Hernández, 2019; Frank et al., 2020; Langørgen and Magnus, 2018; Luthuli and Wood, 2022; Mainardi-Remis, 2018; Martins and Moriña, 2022; Nel et al., 2023; Polo Sánchez and Aparicio Puerta, 2023).

Furthermore, accessibility in infrastructure, materials or resources and admission processes are other elements that various studies have reported as facilitators for achieving educational inclusion in universities (Bartz, 2020; Bell and Swart, 2018; Fernandes et al., 2016; Heffernan, 2023; Mensah et al., 2022; Pereira et al., 2020; Polo Sánchez and Aparicio Puerta, 2023; Schreuer and Sachs, 2014; Silva and De Oliveira, 2018; Vilches Vargas and Garcés Estrada, 2021). Similarly, some publications argue that teacher training on disability and educational inclusion will now be vital for building inclusive higher education institutions (Estácio and Almeida, 2016; Milic Babic and Dowling, 2015; Moriña and Carballo, 2020).

Also, awareness-raising among the university community is essential in the quest to promote educational inclusion (Bell and Swart, 2018; Garcia et al., 2018). However, student support services are essential to reduce inequalities in some universities. These services will have to be aimed at being able to resolve any difficulties presented in terms of academics, psychology, educational guidance, tutorial action and, if possible, job placement (Andoh et al., 2022; Cardoso Pérez, 2020; Moriña and Carballo, 2020; Pereira et al., 2020). Effective communication within the classroom and real budget allocation will also be key (Costas et al., 2022; Ehlinger and Ropers, 2020).

Apart from the above, it was possible to identify the participation of students with disabilities in university governing bodies, inclusive teaching practices, reasonable accommodations, continuing education programmes, tutoring, knowledge of student needs, coordination of units that provide student services, the creation of subjects that address the issue of educational inclusion, and the positive attitude of the teaching staff (Andoh et al., 2022; Bell and Swart, 2018; Cardoso Pérez, 2020; Estácio and Almeida, 2016; Milic Babic and Dowling, 2015; Monroy Flores and Mayorga Rojel, 2020; Moriña and Carballo, 2020).

Mechanisms used by universities to promote the inclusion of students with disabilities

With regard to the mechanisms used by the universities to generate the inclusion of students with disabilities, 73% of the studies reported this detail. The implementation of reasonable adjustments in infrastructure, materials, teaching-learning methodologies, activities developed in the training processes and assessment systems is what most of the articles included in this study highlight (Bell and Swart, 2018; Biggeri et al., 2020; Fernandes et al., 2016; Reyes et al., 2023; Rofiah et al., 2023; Schreuer and Sachs, 2014; Tai et al., 2023).

In the same sense, student services programmes aimed at students with disabilities are considered a decisive mechanism for promoting educational inclusion in universities. Several studies have suggested that such programmes provide academic and psychological support, vocational guidance and promote labour market insertion

at the end of university education (Cardoso Pérez, 2020; Dreyer, 2021; Fontana Hernández, 2019; Frank et al., 2020; Garcia et al., 2018; López-Bastías et al., 2020; Mensah et al., 2022; Rofiah et al., 2023; Vlachou and Papananou, 2018). In addition, a variety of support is offered in these instances, including tutoring, note-taking during lectures and support offered by volunteers as scribes at the examination stage (Bell and Swart, 2018; Biggeri et al., 2020; Bualar, 2018; Langørgen and Magnus, 2018; Schreuer and Sachs, 2014; Silva and De Oliveira, 2018).

Similarly, another mechanism constantly promoted by some universities around the world are institutional policies, which range from establishing educational inclusion as an aspect of change to respecting the human rights of all students with disabilities (Costas et al., 2022; Estácio and Almeida, 2016; Fernandes et al., 2016; Luthuli and Wood, 2022). Furthermore, in this effort to ensure inclusive university education, several institutions have opted to offer scholarships or financial aid to these students. This situation is particularly relevant in developing countries where inequalities, especially economic inequalities, are becoming increasingly evident (Fontana Hernández, 2019; Garcia et al., 2018; Wudmatas, 2022).

Along the same lines, it was identified that special admission plays a transcendental role in the search for inclusion of students with disabilities (Mensah et al., 2022; Monroy Flores and Mayorga Rojel, 2020). As well as the constitution of interdisciplinary teams, student participation in decision-making, the holding of events on this topic, the production of scientific research on inclusion/disability, the development of teacher training processes, the use of inclusive technologies, the valuing of diversity and the good treatment of teachers (Costas et al., 2022; Diniz and Silva, 2021; Estácio and Almeida, 2016; Langørgen and Magnus, 2018; Milic Babic and Dowling, 2015; Rodríguez Martín and Álvarez Arregui, 2014).

Discussion and conclusions

This systematic review focused on the perspective of students with disabilities on barriers, facilitators and mechanisms for inclusion at university. The research question and the established objectives show that the existing scientific literature is vital for decision-making in the quest to transform higher education institutions into inclusive centres. Likewise, the results indicate that Spain and Brazil are the countries where most research has been carried out on the subject.

With regard to the barriers that limit the inclusion of university students with disabilities, the study suggests that attention should be paid to the lack of accessibility that exists in universities. An example of this is the architectural barriers that lead to

the exclusion of students in this condition (Machado and de Oliveira, 2021). Similarly, teacher training processes need to be strengthened, given that having trained teaching staff is conducive to implementing inclusive pedagogy in higher education (Carballo et al., 2023; Sánchez Díaz and Morgado, 2022). In addition, negative attitudes, limited student support services, lack of knowledge about the functioning of programmes and the existence of institutional policies are the elements that hinder the creation of inclusive educational spaces. Some published works show similar results to those presented in this article (García-González et al., 2021; Majoko, 2018; Moswela and Mukhopadhyay, 2011; Paz-Maldonado, 2020).

Therefore, eradicating these barriers will be essential in order to rethink a university education that promotes educational inclusion from a perspective of social justice and that views disability from a different perspective to the one that has traditionally been used over time in different contexts (Bayo Guardiola and Moliner García, 2021; Cruz Vadillo and Casillas Alvarado, 2017; Moríña et al, 2024; Nones-Budde et al., 2023; Paz-Maldonado, 2021; Paz-Maldonado et al., 2023; Seoane, 2011).

Regarding the elements that contribute to the inclusion of students with disabilities at university, it is described that the support provided by peers, teaching staff and families is a determining factor in achieving progress in the educational processes. Despite this, there is research that reveals that students with disabilities have been victims of exclusion by their peers (Lett et al., 2020; Smith et al., 2021). On the other hand, several studies indicate that such students are more motivated than their non-disabled peers, which means that less action is required to engage them in their own learning (Moríña, 2019; Opini, 2012). Consequently, it becomes paramount that students with disabilities are able to develop positive personal attributes to cope with the contexts of exclusion, marginalisation and discrimination that prevail in some university systems.

With regard to the mechanisms used by universities to generate the inclusion of students with disabilities, it was possible to identify that these are varied and range from the implementation of reasonable adjustments to the implementation of special admission as a guarantee of access to higher education. Similar results are shown in other research where the constant use of different means to ensure true educational inclusion is proposed (Hillier et al., 2019; Salmi and D'Addio, 2021; Yusof et al., 2020).

The limitations of this work were to exclude a series of articles that, although they addressed the topic, involved the participation of other actors and actresses belonging to the university community, considered postgraduate students and were written in a language other than Spanish, English or Portuguese. Therefore, the established inclusion/exclusion criteria had to be applied and such publications were not part of the study. On the basis of these results it will be essential that future research can focus on providing real solutions for developing inclusive higher education in contexts of inequality, particularly in developing countries with complex situations, although it

should be borne in mind that the problem of exclusion has no borders or specific nationalities.

In short, the results of this work allow us to affirm that multiple studies have been carried out on the perspective of students with disabilities on barriers, facilitators and mechanisms for inclusion in universities, but that profound changes are required in higher education institutions to guarantee the universal right to education and mitigate existing inequalities. Therefore, there is an urgent need for a university transformation that promotes real reforms to promote the construction of new scenarios with greater opportunities, particularly for students in vulnerable conditions who for years have been and continue to be excluded.

References

- Andoh, R. P. K., Kumudzro, F., and Nketsiaba, R. K. (2022). Accommodation of students with physical disabilities in face-to-face based distance education in Ghana. *Higher Education Research & Development*, 41(7), 2155-2169. <https://doi.org/10.1080/07294360.2021.1979940>
- Bartz, J. (2020). All Inclusive?! Empirical Insights into Individual Experiences of Students with Disabilities and Mental Disorders at German Universities and Implications for Inclusive Higher Education. *Education Sciences*, 10(9), 223. <https://doi.org/10.3390/educsci10090223>
- Bayo Guardiola, R., and Moliner García, O. (2021). Pupils with rare diseases (PDF) in ordinary classrooms: How is their presence, participation and learning guaranteed? *Revista de Investigación Educativa*, 39(2), 571-586. <https://doi.org/10.6018/rie.449011>
- Bell, D., & Swart, E. (2018). Learning experiences of students who are hard of hearing in higher education: Case study of a South African university. *Social Inclusion*, 6(4), 137-148. <https://doi.org/10.17645/si.v6i4.1643>
- Biggeri, M., Di Masi, D., and Bellacicco, R. (2020). Disability and higher education: assessing students' capabilities in two Italian universities using structured focus group discussions. *Studies in Higher Education*, 45(4), 909-924. <https://doi.org/10.1080/03075079.2019.1654448>
- Bualar, T. (2018). Barriers to inclusive higher education in Thailand: voices of blind students. *Asia Pacific Education Review*, 19, 469-477. <https://doi.org/10.1007/s12564-017-9512-7>
- Carballo, R., Molina, V. M., Cortes-Vega, M. D., & Cabeza-Ruiz, R. (2023). Students with disabilities at university: benefits and challenges from the best faculty members' experiences. *European Journal of Special Needs Education*, 38(1), 110-125. <https://doi.org/10.1080/08856257.2022.2031104>

- Cardoso Pérez, M. J. (2020). Peer tutoring (mentoring) as a support for educational inclusion at the Autonomous University of Zacatecas, Mexico. *Revista Cubana de Educación Superior*, 39(2), 1-16. http://scielo.sld.cu/scielo.php?pid=S0257-43142020000200008&script=sci_arttext&tlng=pt
- Costas, F. A. T., Breitenbach, F. V., and de Castro, S. F. (2022). Acessibilidade e inclusão: Estratégias de educação inclusiva da Universidade Federal de Santa Maria (UFSM). *Revista Ibero-Americana de Estudos em Educação*, 17(4), 2857-2879. <https://doi.org/10.21723/riaee.v17i4.17440>
- Cruz Vadillo, R., and Casillas Alvarado, M. Á. (2017). Higher education institutions and students with disabilities in Mexico. *Revista de la Educación Superior*, 46(181), 37-53. <https://doi.org/10.1016/j.resu.2016.11.002>
- Diniz, E. P. D. S., and Silva, A. M. D. (2021). Perspectivas de Estudantes com Deficiências Sobre Facilitadores e Barreiras nas Universidades Públicas de Mato Grosso do Sul. *Revista Brasileira de Educação Especial*, 27(e0092), 461-476. <https://doi.org/10.1590/1980-54702021v27e0092>
- Dreyer, L. M. (2021). Specific learning disabilities: Challenges for meaningful access and participation at higher education institutions. *Journal of Education*, (85), 75-92. <http://dx.doi.org/10.17159/2520-9868/j85a04>
- Ehlinger, E., and Ropers, R. (2020). "It's All About Learning as a Community": Facilitating the Learning of Students With Disabilities in Higher Education Classrooms. *Journal of College Student Development*, 61(3), 333-349. <https://doi.org/10.1353/csd.2020.0031>
- Estácio, M. A. F., and Almeida, D. A. R. (2016). Pessoas com deficiência no ensino superior. *Journal of Research in Special Educational Needs*, 16(s1), 836-840. <https://doi.org/10.1111/1471-3802.12223>
- Fernandes, A. C. R., Oliveira, M. C. S. L., and Almeida, L. S. (2016). Inclusão de estudantes com deficiências na universidade: Estudo em uma universidade portuguesa. *Psicologia Escolar e Educacional*, 20(3), 483-492. <https://doi.org/10.1590/2175-3539201502031024>
- Fontana Hernández, A. (2019). Barriers in university education: the experience of students with disabilities at the National University, Costa Rica. *Revista de Educación Inclusiva*, 12(1), 31-50. <https://revistaeducacioninclusiva.es/index.php/REI/article/view/405>
- Frank, H., McLinden, M., & Douglas, G. (2020). Accessing the curriculum; university based learning experiences of visually impaired physiotherapy students. *Nurse Education in Practice*, 42, 102620. <https://doi.org/10.1016/j.nepr.2019.102620>
- Garcia, R. A. B., Bacarin, A. P. S., and Leonardo, N. S. T. (2018). Acessibilidade e permanência na educação superior: percepção de estudantes com deficiência. *Psicologia Escolar e Educacional*, 22(special issue), 33-40. <https://doi.org/10.1590/2175-3539/2018/035>

- García-González, J. M., Gutiérrez Gómez-Calcerrada, S., Solera Hernández, E., and Ríos-Aguilar, S. (2021). Barriers in higher education: perceptions and discourse analysis of students with disabilities in Spain. *Disability & Society*, 36(4), 579-595. <https://doi.org/10.1080/09687599.2020.1749565>
- Heffernan, T. (2023). Failing at the basics: disabled university students' views on enhancing classroom inclusion. *Oxford Review of Education*, 50(5) 694-709. <https://doi.org/10.1080/03054985.2023.2281314>
- Hillier, A., Goldstein, J., Tornatore, L., Byrne, E., & Johnson, H. M. (2019). Outcomes of a peer mentoring program for university students with disabilities. *Mentoring & Tutoring: Partnership in Learning*, 27(5), 487-508. <https://doi.org/10.1080/13611267.2019.1675850>
- Langørgen, E., and Magnus, E. (2018). 'We are just ordinary people working hard to reach our goals!' Disabled students' participation in Norwegian higher education. *Disability & Society*, 33(4), 598-617. <https://doi.org/10.1080/09687599.2018.1436041>
- Lett, K., Tamaian, A., & Klest, B. (2020). Impact of ableist microaggressions on university students with self-identified disabilities. *Disability & Society*, 35(9), 1441-1456. <https://doi.org/10.1080/09687599.2019.1680344>
- López-Bastías, J. L., Moreno-Rodríguez, R., and Espada-Chavarría, R. (2020). University access in students with disabilities: the influence of educational guidance on the choice of undergraduate studies. *Psychology, Society & Education*, 12(2), 1-17. <http://hdl.handle.net/10835/8665>
- Luthuli, A., and Wood, L. (2022). Nothing about us without us! A PALAR approach to improving inclusion in a Zimbabwean College of Education. *International Journal of Inclusive Education*, 26(10), 1023-1037. <https://doi.org/10.1080/13603116.2020.1766124>
- Machado, L. de V., and de Oliveira, U. R. (2021). Analysis of failures in the accessibility of university buildings. *Journal of Building Engineering*, 33, 101654. <https://doi.org/10.1016/j.jobbe.2020.101654>
- Mainardi-Remis, A. I. (2018). Incidence of institutional factors and self-esteem on the academic trajectories of students with disabilities. *Revista Iberoamericana de Educación Superior*, 9(26), 171-190. <https://doi.org/10.22201/iisue.20072872e.2018.26.302>
- Majoko, T. (2018). Participation in higher education: Voices of students with disabilities. *Cogent Education*, 5(1), 1542761. <https://doi.org/10.1080/2331186X.2018.1542761>
- Martns, M. H. V., and Moriña, A. (2022). Resilience factors in students with disabilities at a Portuguese state university. *Pedagogika*, 146(2), 110-128. <https://doi.org/10.15823/p.2022.146.6>

- Mensah, M. A., Campbell-Evans, G., and Main, S. (2022). Inclusion in Ghanaian public universities: a focus on student voices. *Disability & Society*, 39(5), 1173-1195. <https://doi.org/10.1080/09687599.2022.2142521>
- Milic Babic, M., and Dowling, M. (2015). Social support, the presence of barriers and ideas for the future from students with disabilities in the higher education system in Croatia. *Disability & Society*, 30(4), 614-629. <https://doi.org/10.1080/09687599.2015.1037949>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G., and PRISMA Group (2010). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *International Journal of Surgery*, 8(5), 336-341. <https://doi.org/10.1016/j.ijsu.2010.02.007>
- Monroy Flores, V. E., and Mayorga Rojel, A. J. (2020). Narratives on inclusion-exclusion in university students with disabilities in the city of Temuco (Chile). *Siglo Cero*, 51(2), 73-98. <https://doi.org/10.14201/scero20205127398>
- Moriña, A. (2019). The keys to learning for university students with disabilities: Motivation, emotion and faculty-student relationships. *PLoS One*, 14(5), e0215249. <https://doi.org/10.1371/journal.pone.0215249>
- Moriña, A., and Carballo, R. (2020). University and inclusive education: recommendations from the voice of Spanish students with disabilities. *Educação & Sociedade*, 41, e214662. <https://doi.org/10.1590/ES.214662>
- Moriña, A., Tontini, L., & Perera, V. H. (2024). External accomplice factors in university success: Narratives of graduates with invisible disabilities in Italy. *International Journal of Educational Research*, 124, 102316. <https://doi.org/10.1016/j.ijer.2024.102316>
- Moswela, E., and Mukhopadhyay, S. (2011). Asking for too much? The voices of students with disabilities in Botswana. *Disability & Society*, 26(3), 307-319. <https://doi.org/10.1080/09687599.2011.560414>
- Mutanga, O. (2018). Inclusion of students with disabilities in South African higher education. *International Journal of Disability, Development and Education*, 65(2), 229-242. <https://doi.org/10.1080/1034912X.2017.1368460>
- Nel, L., de Beer, A., & Naudé, L. (2023). Challenges as Motivation for Growth in First-Year Students Living with Disability. *International Journal of Disability, Development and Education*, 70(7), 1438-1457. <https://doi.org/10.1080/1034912X.2022.2060945>
- Nones-Budde, I., Fonseca-Aguiriano, Á., Vásquez-Herrera, J., and Paz-Maldonado, E. (2023). Perceptions of university student teachers on disability and educational inclusion in Honduras. *Márgenes, Journal of Education of the University of Málaga*, 4(1), 119-134. <https://doi.org/10.24310/mgnmar.v4i1.15234>
- Opini, B. M. (2012). Examining the motivations of women students with disabilities' participation in university education in Kenya. *Scandinavian Journal of Disability Research*, 14(1), 74-91. <https://doi.org/10.1080/15017419.2010.540853>

- United Nations [UN] (2006). *Convention on the Rights of Persons with Disabilities*. <https://www.un.org/esa/socdev/enable/documents/tccconvs.pdf>
- United Nations [UN] (2019). *The 2030 Agenda and the Sustainable Development Goals: an opportunity for Latin America and the Caribbean*. <https://hdl.handle.net/11362/40155>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J.M., Akl, E.A., Brennan, S.E., Chou, R., Glanville, J., Grimshaw, J.M., Hróbjartsson, A., Lalu, M.M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., McGuinness, L.A., and Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *International Journal of Surgery*, 88, 105906. <https://doi.org/10.1016/j.ijso.2021.105906>
- Paz-Maldonado, E. (2020). Educational inclusion of students with disabilities in higher education: a systematic review. *Teoría de la Educación*, 32(1), 123-146. <https://doi.org/10.14201/teri.20266>
- Paz-Maldonado, E. (2021). La inclusión educativa del estudiantado universitario en situación de discapacidad en Honduras. *Ensaio: Avaliação e Políticas Públicas em Educação*, 29(112), 738-760. <https://doi.org/10.1590/S0104-403620210002902767>
- Paz-Maldonado, E., Silva-Peña, I., and Schilling Lara, C. A. (2023). Challenges and reflections in the training of inclusive university teachers: an autobiographical narrative enquiry. *Revista Brasileira de Educação Especial*, 29, e0008, 473- 488. <https://doi.org/10.1590/1980-54702023v29e0008>
- Pereira, R. R. R., Faciola, R. A., Pontes, F. A. R., Ramos, M. F. H., and Silva, S. S. D. C. (2020). Students with disabilities at the Federal University of Pará: difficulties and suggestions for improvement. *Revista Brasileira de Educação Especial*, 26(3), 387-402. <https://doi.org/10.1590/1980-54702020v26e0087>
- Polo Sánchez, M. T., and Aparicio Puerta, M. (2023). Perceptions of university students with disabilities in Spain: Ideas and beliefs about attitudes towards their inclusion. *Disability & Society*, 38(8), 1435-1450. <https://doi.org/10.1080/09687599.2021.1997716>
- Reyes, J. I., Meneses, J., & Xavier, M. (2023). Suitability of Online Higher Education for Learners with Disabilities: The Students' Voices. *Journal of Special Education Technology*, 38(3), 370-383. <https://doi.org/10.1177/01626434221131772>
- Rodríguez Martín, A., and Álvarez Arregui, E. (2014). Students with disabilities at university. A study on their inclusion. *Revista Complutense de Educación*, 25(2), 457-479. https://doi.org/10.5209/rev_RCED.2014.v25.n2.41683
- Rofiah, K., Ngenge, R. T., Sujarwanto, S., and Ainin, I. K. (2023). Inclusive education at Universitas Negeri Surabaya: Perceptions and realities of students with disabilities. *International Journal of Special Education*, 38(2), 14-25. <https://doi.org/10.52291/ijse.2023.38.18>

- Salmi, J., and D'Addio, A. (2021). Policies for achieving inclusion in higher education. *Policy Reviews in Higher Education*, 5(1), 47-72. <https://doi.org/10.1080/23322969.2020.1835529>
- Sánchez Díaz, M. N., and Morgado, B. (2022). 'With arms wide open'. Inclusive pedagogy in higher education in Spain. *Disability & Society*, 39(7) 1800-1820. <https://doi.org/10.1080/09687599.2022.2162858>
- Schreuer, N., & Sachs, D. (2014). Efficacy of accommodations for students with disabilities in higher education. *Journal of Vocational Rehabilitation*, 40(1), 27-40. <http://dx.doi.org/10.3233/JVR-130665>
- Seoane, J. (2011). What is a person with a disability? *Agora. Papeles de Filosofía*, 30(1), 143-161. <http://hdl.handle.net/10347/7386>
- Silva, J. S. S., and Ferreira, W. B. (2017). Sombreado a pessoa com deficiência: aplicabilidade da técnica de sombreado na coleta de dados em pesquisa qualitativa. *Revista Brasileira de Educação Especial*, 23(2), 185-200. <https://doi.org/10.1590/S1413-65382317000200003>. <https://doi.org/10.1590/S1413-65382317000200003>.
- Silva, K.C., and De Oliveira, S. E. S. (2018). A Visão de Universitários com Deficiência sobre as Condições de Acessibilidade na Educação Superior. *Perspectivas em Diálogo: Revista de Educação e Sociedade*, 5(9), 55-74. <http://hdl.handle.net/20.500.12424/4160773>
- Smith, S. A., Woodhead, E., & Chin-Newman, C. (2021). Disclosing accommodation needs: exploring experiences of higher education students with disabilities. *International Journal of Inclusive Education*, 25(12), 1358-1374. <https://doi.org/10.1080/13603116.2019.1610087>
- Tai, J., Mahoney, P., Ajjawi, R., Bearman, M., Dargusch, J., Dracup, M., & Harris, L. (2023). How are examinations inclusive for students with disabilities in higher education? A sociomaterial analysis. *Assessment & Evaluation in Higher Education*, 48(3), 390-402. <https://doi.org/10.1080/02602938.2022.2077910>
- Ule, M. (2017). Identity challenges and social experiences of higher education students with disabilities in Slovenia. *Disability & Society*, 32(10), 1592-1607. <https://doi.org/10.1080/09687599.2017.1367646>
- Vergara Fregoso, M., and Gamboa Suárez, A. A. (2022). Processes of Educational Inclusion in Times of Crisis. *Journal of Pharmaceutical Negative Results*, 13(Special Issue 8), 1722-1728. <https://doi.org/10.47750/pnr.2022.13.S08.208>
- Vilches Vargas, N., and Garcés Estrada, C. (2021). Accesibilidad del entorno en Educación Superior, desafíos frente a la Discapacidad Física en la región de Tarapacá. *Journal of Studies and Experiences in Education*, 20(43), 35-57. <http://dx.doi.org/10.21703/rexe.20212043vilches2>

- Vlachou, A., and Papananou, I. (2018). Experiences and perspectives of Greek higher education students with disabilities. *Educational Research*, 60(2), 206-221. <https://doi.org/10.1080/00131881.2018.1453752>
- Wudmatas, D. (2022). Undaunted Souls: The Experiences of Blind Students at Bahir Dar University. *International Journal of Disability, Development and Education*, 69(6), 2108-2135. <https://doi.org/10.1080/1034912X.2020.1843140>
- Yusof, Y., Chan, C. C., Hillaluddin, A. H., Ahmad Ramli, F. Z., and Mat Saad, Z. (2020). Improving inclusion of students with disabilities in Malaysian higher education. *Disability & Society*, 35(7), 1145-1170. <https://doi.org/10.1080/09687599.2019.1667304>

Traducido con  DeepL

Date received: 20 February, 2024.

Review date: 14 March, 2024.

Acceptance date: 4 June, 2024.